

THE SOUTH ISLAND OTTER — AN ADDENDUM

G.A. POLLOCK*

SUMMARY: Further reported sightings, some in new areas, are recorded and examined. Tentative conclusions as to the animal's ecology and revised theories as to its zoological classification and distribution throughout the island are suggested.

INTRODUCTION

An earlier paper (Pollock 1970a) traversed the more important evidence as to the existence of the controversial South Island otter, suggesting a means whereby it could have been introduced to New Zealand and its possible zoological classification and point of origin. Since that date numerous other accounts, both old and recent, have come to hand, among which are several so detailed and circumstantial as not only to reinforce my earlier conviction of the animal's existence, but also to suggest tentative conclusions as to its characteristics, ecology and present distribution. The more important of these are set out in the present paper.

RECENTLY REPORTED SIGHTINGS

1. *Southland*

In line with the trend of earlier reports many of the recent accounts originate in or near the Southland Land District. One of the most impressive is that of Bob Thompson of Dunedin who, in December 1968, was occupying a holiday hut near the Whakaea river about half way between Waikaia township and Piano Flat. Near it runs the Stevenburn, which, some 100 m above the hut, has been diverted towards it to run past, and probably drain, a long-disused milking shed. He said he was awakened at daybreak by possums on the roof and emerged to see an animal come up out of the creek just below the point of diversion, look round very cautiously and then apparently signal to three others, estimated by him as three parts grown, for they followed her up the bank and all disappeared behind some shrubbery. He immediately recognised them as otters, and his qualifications for so judging are excellent: he is an Englishman who lived for many years beside the River Yare in Norfolk, where otters abound.

The movements of the otters, if otters they were, can be logically explained. They could during the night have been fishing further upstream — part of a young otter's education; but returning towards the holt at daybreak the mother sensed that the hut was occupied, so she led her brood down the old dry channel to by-pass the point of danger.

Admittedly this account may be open to argument, for there are ferrets in the vicinity which could possibly have been mistaken for otters. However, the behaviour pattern seems more characteristic of otters and supports Thompson's identification.

A more recent report appears open to no such objection. Early in 1971 P.J.A. Bradley, a Timaru resident well versed in New Zealand wildlife, was shooting for deer in the bush near the right bank of the Hollyford river below the confluence of the Pyke. When conditions in the bush became too dark for effective stalking he made his way towards the river to wait for the jet boat that was to pick him up; but as he approached he heard a considerable splashing in a backwater, so he crept quietly towards the spot. There he saw an animal climb the bank then slide down as if in play; he watched for about fifteen minutes, during which the performance was repeated four or five times. Though Bradley claimed no first hand knowledge of otters, the closeness and duration of the observation, coupled with the quite distinctive behaviour pattern, carry considerable conviction. His description too was good: he said the animal had a very thick tail streamlined on to the body and tapering; legs short and thick; fur dark brown, apparently short and smooth; head small in relation to the body, with no noticeable neck or ears. The length overall he estimated as from 36 inches (91.4 cm) to 42 inches (106.7 cm).

* 18 Lansdowne Terrace, Christchurch

2. *Canterbury.*

Meantime the other main traditional habitat (Canterbury, south of the Waimakariri) has not lacked reports, but of these I will quote three only, since in each case the observer shared Thompson's qualification — first hand knowledge of otters in Britain. One, from a built up area of Ashburton, is remarkable as suggesting that the New Zealand animal, though secretive in habit, is not necessarily over-wary of populous places, resembling in this respect the otter of Britain (Stephens 1957). In June 1968 (or 1969) at about 1515 hours Mrs K. Font was walking with her children to the shops in Creek Road, which there crosses, by a culvert-like bridge, the small Wakanui stream. One of the children, looking downstream from the bridge, drew her attention to a swimming animal; this she immediately pronounced an otter, for the resemblance to otters she knew was so great that no alternative occurred to her. The stream leads, a few chains further down, through a disused millpond, now a heavily overgrown swamp, while further up a feasible route from the Ashburton river (north branch) can be traced.

Again there is an element of doubt, for when questioned later she conceded that what she had seen could have been a ferret or fitch; she was not aware that in New Zealand many of these, in the wild state, show marked polecat characteristics. Nevertheless the probabilities favour her first judgment, for while fitches will certainly enter water after prey they are most unlikely to favour a stream as a means of travel.

The other reports, from J.W. Mason of Timaru, leave no room for any such confusion; in fact the first is in my opinion worthy to rank with the tracks seen by Haast (Pollock 1970a) as practically conclusive proof. On a warm sunny afternoon in late January 1970 he was driving his car along the left bank of the Opihi river below Temuka towards a favoured fishing hole when, approaching the end of the track, he saw an animal feeding on a grassy bank. Leaving his car he walked towards it to a distance of about five metres, the animal meantime watching him approach. He was positive it was an otter, for he was close enough even to see the interdigital web on its forefeet. Then it made off through scrubby

growth towards the river, where he lost sight of it. It was, he said, an adult, about 30 inches (76 cm) from nose to tip of tail; colour between raw umber and burnt sienna, and when he returned to see what it had been eating he found half of a freshly caught eel.

The next year, on a stormy night in August, as he was approaching the Arundel bridge from the north, a similar animal crossed the road in the lights of his car and stood watching him from the verge; this too he was certain was an otter. His qualifications to judge could hardly be better; he had spent much of his life near the Nene and Ouse, two of the most frequented rivers in Britain, and had seen many otters there.

3. *The Taieri Plain.*

Between the Clutha and the Opihi lies a tract long devoid of reports, so, having regard also to the bare open nature of much of the intervening country, it seemed to me unlikely that there could now be any communication between the southern and Canterbury populations as deduced from earlier sightings. However, recent discoveries on the extensive swamp between and to the west of Lakes Waipori and Waihora render this much less certain. Of the total area of about 800 ha over a third, including Ram Island (one of the few prominent features), is owned by Horace Sinclair of Outram. Though the swamp is continuously under water, with many lagoons of varying sizes, it is possible to graze cattle over most of the area, for there is a solid bottom less than one metre down; in fact some decades ago a large part was enclosed in stopbanks, pumped dry and cultivated; but now the main vegetation is rushes, raupo, niggerheads and aquatic grasses. Probably only Sinclair himself has ever been over the whole area in recent years. In season he is there in search of ducks, and later whitebait, but his interest is not confined to these as he is an enthusiastic and knowledgeable amateur ornithologist.

At about 1030 hours on the first Saturday in June 1970 he was traversing, with gun in hand, the swamp near the south end of Ram Island lagoon, when an animal exploded from a small pool and made off with an undulating motion over some firm ground. He thought at first it was

a rat (*Rattus norvegicus*) and being an instinctive shooter raised his gun and fired; however even as he pulled the trigger he realised it was no rat but an animal he had never seen before. With a companion he searched the spot where it should have been but found nothing — not even bloodstains; and it may be noted that, except at very close range, an otter's fur and skin are most resistant to shotgun pellets (Stephens 1957).

Though he had only a rear view he was able to describe several significant features. The body seemed barrel-like, from 10 to 13 cm in diameter; length up to 30 cm head and body — 50 cm over all. (These latter dimensions, from the angle of sight, would be the hardest to estimate with accuracy.) Colour was intermediate between dark shades of raw umber and sepia, but much lighter (say raw sienna) on the underparts. However, the most positive characteristic was the tail — tapering, much thicker than that of a rat and exactly as portrayed in various photographs of *Lutra lutra* subspecies.

On 26 April 1971 Sinclair and a friend Ian Bruce had occasion to inspect a drain leading across the swamp from high ground, about 700 m from the point of the original sighting. Near its source this had dried out to viscous mud, on which they found numerous footprints, about the size of a matchbox, which exactly corresponded to tracks of *Lutra lutra* as described in an article (Pollock 1970b) which had that very morning been read in a farming radio session. These were unmistakable, for on some even the interdigital web was clearly apparent.

Often on clear still nights they had heard over the swamp the “plop” of some creature as it splashed in the pools; this seemed much too loud for either eel or trout. They were never able to sight the animal but did on occasion see very extensive ripples.

Sinclair said also that, near the point where the old broken stopbank runs down to a wide deep branch of the Waipori river, he had observed several well defined and obviously well used tunnels through the rank grass and other dense vegetation. In April 1973 I had an opportunity of inspecting these. Ram Island itself can be reached only by rowboat; from there the

stopbank forms a rather precarious path to the river — one most unlikely to be used by mainly terrestrial animals such as possums or ferrets; indeed it may be noted that no ferrets have been known even on the island for many years.

One of the tunnels was soon found; it led down from the bank through a rush of giant proportions, and on parting the reeds to inspect it I found the tunnel led along under the bank out of sight; in one place it had been enlarged by excavation. About one metre further on I parted the reeds again, this time from the lower side, to find a well-defined chamber about 0.5 m long and half that in diameter. It was much too big for a rat's nest, and in any event there was no trace of the dry grass with which rats commonly line their nests. Immediately above the chamber another but less used tunnel led vertically to the top of the bank — probably as an emergency exit. The complex had all the characteristics of an otter “holt”, and it is hard to imagine any other creature likely to have constructed it in such detail. The vertical entrance tunnels, excavation and above all the total lack in the chamber of any lining material, feathers or down eliminated, in my opinion, any possibility that it had been the nest of any species of duck.

Bruce, during the 1973 shooting season (May) was rowing across Ram Island lagoon to his “maimai” (shooting blind) set some distance out from the western bank, which was clothed in dense raupo. It was before daybreak, so nothing was seen, but twice a swimming animal of some size seized his paddle, then released it; twice also it bumped the bottom of his boat before swimming away. At the same spot both Sinclair and Bruce often heard from the maimai a very considerable splashing behind the raupo, as if from an animal at play. Though once they rowed cautiously towards the spot, nothing could be seen and the noise had ceased.

Other observations made by Sinclair included tracks and possible sprints on the stopbank between the island and the river, grass twisted up into “sign heaps” as described by Stephens (1957) and a beaten path across a tongue of Ram Island on a route unlikely to have been followed by any creature known to frequent the area.

PHYSICAL CHARACTERISTICS

From the further sightings reported it is now possible to reach some tentative conclusions as to the animal's external characters. While these are consistent generally with those of the genus *Lutra* — particularly the species *L. lutra* — it would seem likely that any otter here would be smaller than most other varieties; indeed, Tarawhata's estimate (in Watson 1960) of two feet (61 cm) head and body and 40 inches (102 cm) over all is about the maximum so far recorded; many quite impressive accounts show dimensions considerably smaller. As for colour I have found Winsor & Newton's artists' charts invaluable in checking estimates; with a considerable degree of unanimity these range, for the dorsal fur, between dark shades of raw umber and sepia. In common with otters generally, underparts are usually lighter, though these have not always been visible.

One or two variants are interesting; Tarawhata spoke of a "grizzling" of the fur, while there are two reports, otherwise quite circumstantial, of spotted or speckled animals. Three other accounts mention bright shades — raw sienna, cadmium yellow deep and even Naples yellow — but these I treat with caution; there is too great a possibility of confusion with the fitch, which in New Zealand has been known to exhibit similar variations (Wodzicki 1950).

POSSIBLE ZOOLOGICAL CLASSIFICATION

Haast's firm description of the tracks seen by him as "exactly resembling those of the otter of Europe, only a little smaller" (Haast 1877, 1879) strongly indicates some species of genus *Lutra*; but I find I can no longer support my suggestion (Pollock 1970a) of *L. (Lutrogale) perspicillata* as a possibility; not only is that species too large, but it is never grizzled, while on the other hand our animal shows no sign of being gregarious. Of the *L. lutra* subspecies listed by Harris (1968) *L. lutra barang* seems the nearest, except in point of colour; but a question arises — could we have here a species or subspecies which, since its introduction say five centuries ago, has become extinct or nearly so in its native habitat? The example of the Parma wallaby (*Macropus parma*) on Kawau Island shows that this is at least a

possibility. Capture of a specimen — I hope alive — would solve many problems.

ECOLOGY

There are indications that the animal's ecological characteristics may differ in some respects from those of most members of species *L. lutra*. It seems extraordinarily mobile and, in distributing itself throughout the island, capable of traversing mountain passes or cols up to 1100 m or higher. When travelling away from water it could rely as a staple diet on lizards such as the skink (*Leiopisma zelandica*) — an item quite logical, but so far as I am aware never recorded for otters elsewhere in the world. This may be the explanation for Tarawhata's view (in Watson 1960) that there were two kinds — an aquatic one eating fish and a land one living on lizards.

Recent evidence suggests that, in the Canterbury foot-hills at least, when the onset of winter causes much of their natural prey to hibernate, some of the animals may migrate considerable distances on to the plains, even as far as the smaller streams feeding Lake Ellesmere.

However, the most remarkable ecological feature is the lack of conspicuous spraints. Haast apparently saw none, though he must have looked, and in a diligent search of at least a dozen streams I have had no more success. Wall (1926) and much later Harris (1968) treated this as a main argument against the animal's existence; but recent research in Sweden by Sam Erlinge (1968) removes most of its force. He considered (I think correctly) that the ritual deposit of faeces in prominent situations is not a compulsive, even aimless, process but is in every instance consciously directed towards one or other of two purposes — sexual and territorial — the latter being predominant; for he found that even a small lessening of population pressures resulted in a dramatic reduction in spraints. Here (except possibly in a few confined areas such as the Taieri plain) such pressures would be minimal; so the discovery of spraints in any quantity would more probably indicate mating activity. As for normal bowel evacuation, it has even been suggested that in the absence of signalling activity this could take place in the water.

DISTRIBUTION

The limits previously suggested (Pollock 1970a) now seem too restricted, for not only do we have the recent accounts from the Waipori swamp, but there are two, possibly three, quite persuasive reports from northern Westland and Buller. I would now be reluctant to regard any area of the South Island as impossible or even improbable.

It is otherwise however with the North Island, whence no reports have ever come. This goes far to rebut the argument of critics such as Wall (1926) and Watson (1960) that most if not all of the reported sightings were probably mistakes for one or other of the smaller introduced mammals; for all of the alternatives suggested — be they rat, possum, stoat or ferret — are also numerous north of Cook Strait.

CONCLUSION

I conclude that this evidence, coupled with that set out in my 1970 paper, is *prima facie* proof, not only of the existence of the “waitoreke”, but of its survival to this day. Of the fields for further investigation obviously the most promising is the Waipori swamp on the Taieri plain; but though Sinclair and Bruce are doing as much as possible, they cannot be continuously on the spot, and nothing short of this is likely to produce more tangible results, particularly the capture of a specimen. By “capture” I mean just that, for as a conservationist I could not tolerate the destruction of a rare animal merely to prove it

had once lived. Bradley, with rifle in hand, did indeed have this opportunity; that he refrained is I think greatly to his credit.

REFERENCES

- ERLINGE, Sam 1968. Territoriality of the otter *Lutra lutra lutra*. *Oikos* 19: 81, 84.
- HAAST, J. von 1877. Presidential address to Canterbury Philosophical Institute. *Transactions of New Zealand Institute* 10: 44, 48.
- HAAST, J. von 1879. Geology of the provinces of Canterbury and Westland, New Zealand. pp. 427-429. Times office, Christchurch.
- HARRIS, C.J. 1968. *Otters*. Weidenfeld & Nicolson, London. p. 73 and Appendix B.
- POLLOCK, G.A. 1970a The South Island otter — a reassessment. *Proceedings of New Zealand Ecological Society* 17: 129-135.
- POLLOCK, G.A. 1970b. Find the otter. *Tussock Grasslands and Mountain Lands Institute Review* 20: 66.
- STEPHENS, Marie 1957. *Natural history of the otter* (“*Otter Report*”) pp. 10, 16, 17, 24, 34. University Federation of Animal Welfare, London.
- WALL, A. 1926. The mythic otter of New Zealand. The Press, Christchurch, 8 Sept.
- WATSON, J.S. 1960. The New Zealand “otter”. *Records of Canterbury Museum, Christchurch* 7: 175-183.
- WODZICKI, K.A. 1950. Introduced mammals of New Zealand. *New Zealand Department of Scientific and Industrial Research Bulletin* 98: 69.